

# Trace Compass Updates



Progress Report Meeting

# Agenda

1 Introduction

2 Status

3 New Release

4 Upcoming

5 Demo



# Trace Compass

- Framework to build trace visualization and analysis tool
- Enables trace analysis/correlation from different sources
- Extensible for any trace/log format and analyses
- Reusable views and widgets
- Scalability allows to handle traces exceeding memory
- Support for standalone applications or set of plug-ins
- Support of various trace formats, e.g. CTF, PCAP, text...
- LTTng integration
- Trouble-shooting tool

# Status



- Simon became committer



- Loic left



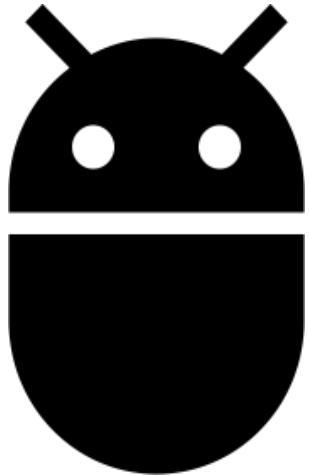
- Trace Compass 3.2 and 3.3 are out



# Status



## Trace Compass for Android Developers

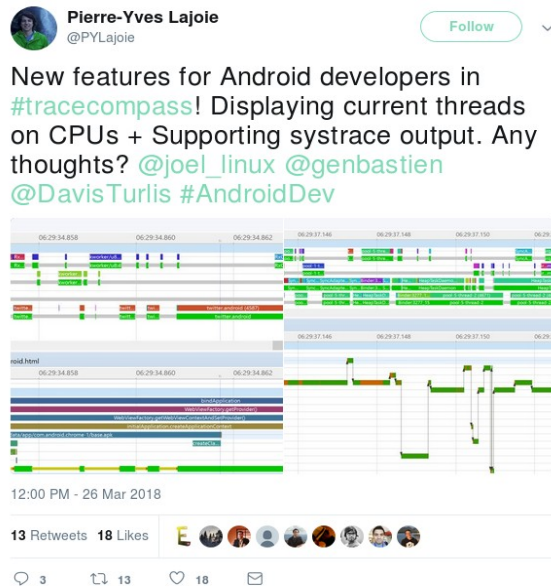


- Support systrace output
- Show current thread on CPU
- Follow thread

# Status



## Trace Compass for Android Developers



- Trace Compass community ✓
- Support of ftrace ✓
- Available in Trace Compass Incubator ✓

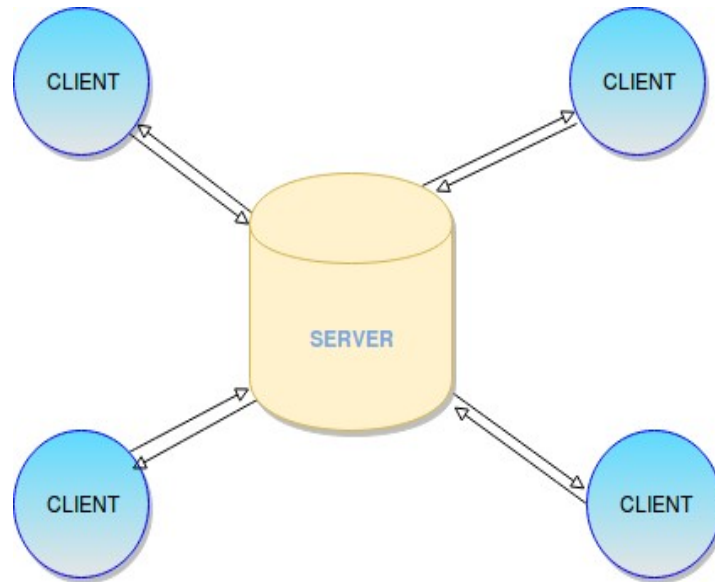
Android: [http://archive.eclipse.org/tracecompass.incubator/doc/org.eclipse.tracecompass.incubator.atrace.doc.user/User-Guide.html](http://archive.eclipse.org/tracecompass/incubator/doc/org.eclipse.tracecompass.incubator.atrace.doc.user/User-Guide.html)  
ftrace: <http://archive.eclipse.org/tracecompass.incubator/doc/org.eclipse.tracecompass.incubator.ftrace.doc.user/User-Guide.html>

# Status



## Support for data providers

- Separate client and server
- Time graph, XY, XML views, Events table
- Trace Server Protocol

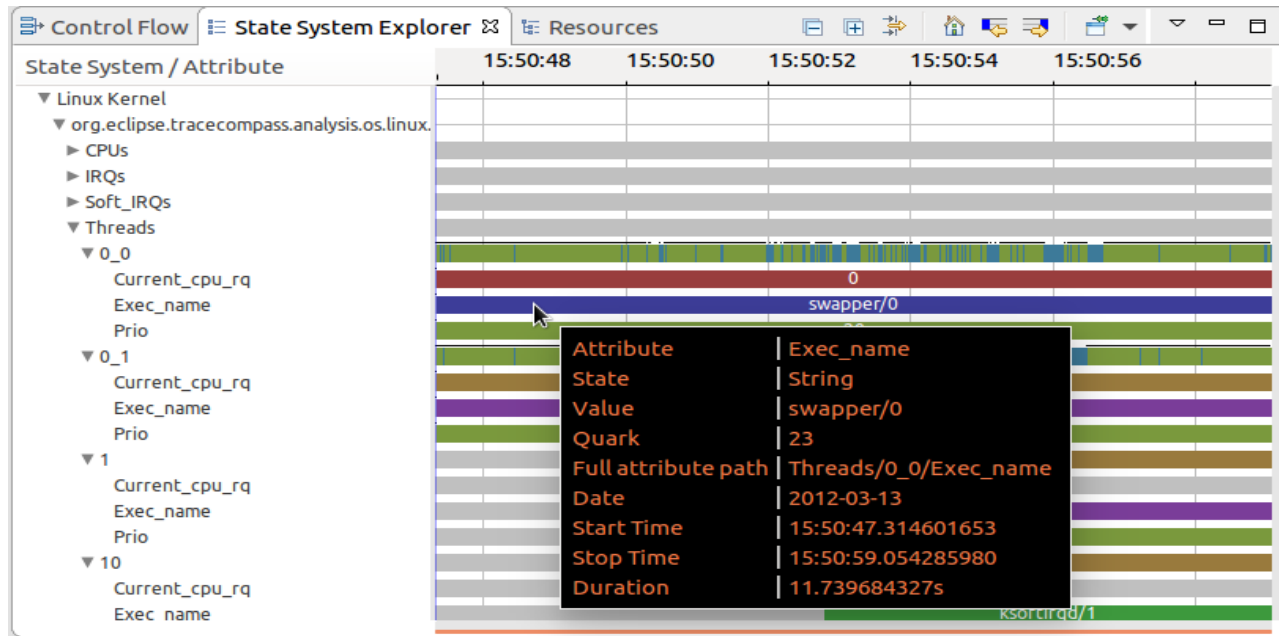


Trace Server Protocol: <https://github.com/theia-ide/trace-server-protocol>

# New in 3.3



## State System Explorer improvements



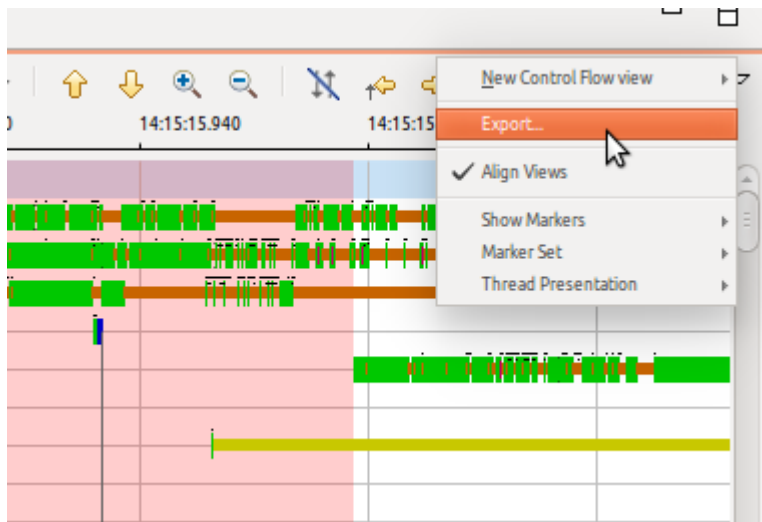


# New in 3.3



## Export views to image

- Share findings



# New in 3.3



## Dynamic filtering in the Control Flow View

The screenshot displays the Control Flow View interface. On the left, a process tree lists various processes including 'trace2', 'lttng-consumerd', 'lttng-sessiond', 'lttng', 'swapper/0', and 'firefox'. The main area shows a control flow graph with horizontal bars representing threads and vertical arrows indicating control flow between them. A 'Dynamic Filters Configuration' dialog box is overlaid on the graph, showing the following configuration:

- Show Active Threads Only:**
- Options:**
  - All Active Threads
  - Active Threads on CPUs:

# New in 3.3



- Pin and Clone for XY chart
- Column Comparators in the Call Stack View
- Custom Legend API
- Chart View improvements

# Recap of Incubator content



- Trace formats:
  - Trace event
  - Perf
  - Ftrace
  - Uftrace
  - Maven (e.g. Build logs)
  - Atrace
- Additional features:
  - Generic Callstack
    - Local Flame graphs
  - Heat maps
  - VM Analyses
  - Trace Server (soon to be dockerized)
  - Shared UST/Kernel Models
  - More
- Also XaF

# Upcoming



- Timegraph view filtering
  - Filter the time events by regex

- Trace trimming 

- Edit arrow color and thickness

- Toggle gridlines 

- Auto fit events table column

- CPU frequency line



# DEMO

# Reference



Project pages (downloads, user guides, contacts)

- <http://projects.eclipse.org/projects/tools.tracecompass>
- <http://projects.eclipse.org/projects/tools.tracecompass.incubator>
- <http://www.eclipse.org/tracecompass>
- <http://www.tracecompass.org>
- <http://istmffastyet.dorsal.polymtl.ca/>

LTTng project

- <http://ltnng.org/>

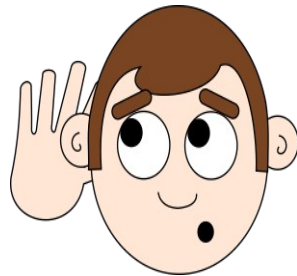
Working groups

- <https://www.polarsys.org/>
- <http://diamon.org/>

# Contact



- Online:
  - Mailing list: [tracecompass-dev@eclipse.org](mailto:tracecompass-dev@eclipse.org)
  - IRC: oftcn.net #tracecompass
- Offline:
  - We are still human. We talk!







# Q & A

